

PEOPLE

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Human Resources reports the following personnel changes:

Key Management Assignments

*Kristin Ingram* was selected as chief, Information Science Branch, Information Products and Services Division, Information Systems Directorate.

*David Harris* was selected as chief, Propulsion Test Office, White Sands Test Facility.

*Patricia Bahr* was selected as chief, Planning and Integration Branch, Flight Projects Division, Space and Life Sciences Directorate.

Promotions

*Nancy Hawkins* was selected as a management analyst in the Procurement Policy and Systems Office, Office of Procurement.

*Todd Pryor* was selected as lead, Center Transportation Group, in the Transportation Branch, Logistics Division, Center Operations Directorate.

*Nilda Reyes* was selected as an administrative assistant in the Office of the Chief Financial Officer.

*Becky Stinson* was selected as a financial management specialist in the Financial Services Branch, Financial Management Division, Office of the Chief Financial Officer.

*Renee Hasson* was selected as Space Flight Awareness program assistant, Safety, Reliability, and Quality Assurance Office.

Additions to the Workforce

*Kirk Hummel* joins the Environmental Office, Center Operations Directorate, as an environmental engineer.

Reassignments Between Directorates

*Debra Bulgher* moves from the Mission Operations Directorate to the Space and Life Sciences Directorate.

Resignations

*Dave Gerlach* of the Flight Crew Operations Directorate.

*Rich Dinkel* of the Safety, Reliability, and Quality Assurance Office.

*Karen Peterson* of the International Space Station Program Office.

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January 14

**Astronomers meet:** The JSC Astronomical Society will meet at 7:30 p.m. January 14 and February 11 at the Center for Advanced Space Studies, 3600 Bay Area Blvd. For more information, call Chuck Shaw at x35416.

January 19

**Astronomy seminar:** The JSC Astronomy Seminar Club will meet at noon January 19 and 26 and February 2 and 9 in Bldg. 31, Rm. 248A. For more information, call Al Jackson at x35037.

**Scuba club meets:** The Lunarfans will meet at 7:30 p.m. For more information, call Mike Manering at x32618.

**Spaceland Toastmasters meet:** The Spaceland Toastmasters will meet at 7 a.m. January 19 and 26 and February 2 and 9 at the House of Prayer Lutheran Church. For more information, call George Salazar at x30162.

**Spaceteam Toastmasters meet:** The Spaceteam Toastmasters will meet at 11:30 a.m. January 19 and 26 and February 2 and 9 at United Space Alliance, 600 Gemini. For more information, call Patricia Blackwell at (281) 280-6863.

January 20

**Communicators meet:** The Clear Lake Communicators, a Toastmasters club, will meet at 11:30 a.m. January 20 and 27 and February 3 and 10 at Freeman Library, 16602 Diana Lane. For more information, call Allen Prescott at (281) 282-3281 or Mark Caronna at (281) 282-4306.

**Directors meet:** The Space Family Education board of directors will meet at 11:30 a.m. in Bldg. 45, Rm. 712D. For more information on this open meeting contact Lynn Buquo at x34716.

January 24

**Alzheimer's support group meets:** The Clear Lake Alzheimer's Caregiver Support Group will meet at 7:30 p.m. to 9 p.m. in the first floor conference room, St. John Hospital West building, Nassau Bay. For more information, contact Nancy Malley at (281) 480-8917 or John Gouveia (281) 280-8517.

January 27

**Radio Club meets:** The JSC Amateur Radio Club will meet at 6:30 p.m. at the Piccadilly, 2465 Bay Area Blvd. For more information, call Larry Dietrich at x39198.

January 29

**Judges needed:** Volunteers are needed to judge National Engineers Week Future City Competition at the San Jacinto College – central campus. Please visit [www.futurecity.org](http://www.futurecity.org) or [www.ghgcorp.com/ieeeegbs/futurecity-houston/](http://www.ghgcorp.com/ieeeegbs/futurecity-houston/) or contact Dr. Taqvi at [Z.Taqvi@ieee.org](mailto:Z.Taqvi@ieee.org) for more information.

February 1

**Quality society meets:** The Bay Area Section of the American Society for Quality will meet at 6 p.m. at the Ramada King's Inn on NASA Road 1. No reservations are required. For more information, contact Ann Dorris at x38620.

Payload Safety Conference

The Nassau Bay Hilton, Houston, will be the site of a Payload Safety Conference on February 23-25, 2000. The conference theme is “Mission Success Starts with Safety.”

The objectives of the conference are to provide payload organizations with a common, accurate understanding of payload safety technical and process requirements, to foster synergy within the payload safety community, and to promote payload safety as the foundation for mission success. The conference is primarily intended for personnel responsible for the design and safety certification of International Space Station and shuttle payloads, including payload safety engineers, project managers, and technical support specialists.

General sessions will include presentations on payload safety challenges in the ISS era, the payload safety Data Management System, and process and technical requirements for both ground and space flight safety. More specialized sessions will be offered on technical topics, including pressure systems and pressure vessels, batteries, materials, structures, fracture control, fire detection and suppression, extravehicular activity, toxicology, electrical power distribution, and bonding and grounding.

Dr. Bonnie Dunbar will address attendees at the conference luncheon on February 24.

The conference Web site is located at [www.rsis.com/nasa/conference/intro/](http://www.rsis.com/nasa/conference/intro/)

If you have any questions, contact Michael Ciancone at x38848 or e-mail at [mciancon@ems.jsc.nasa.gov](mailto:mciancon@ems.jsc.nasa.gov).

NASA BRIEFS

CHANDRA PLOUGHS UP A SNAKE IN HYDRA A

NASA's Chandra X-ray Observatory image of the Hydra A galaxy cluster has revealed a possible solution to a Herculean puzzle about the fate of the largest objects in the universe.

For years astronomers have been searching unsuccessfully for large quantities of matter they believed must be flowing into the central regions of galaxy clusters. The Chandra image of Hydra A displays for the first time long snake-like strands of 35 million degree gas extending away from the center of the cluster. These structures show that the inflow of cooling gas is deflected by magnetic fields produced by explosions from a central black hole.

The X-ray image also reveals a bright wedge of hot multimillion degree gas pushing into the heart of the cluster. Like the legendary Hercules, who had to contend with the multiple heads of the monstrous Hydra, astrophysicists now know they must deal with the effects of magnetic fields, star formation, rotation and black holes if they are to understand what is happening in the inner regions of the galaxy cluster.

As the largest gravitationally bound objects in the universe, galaxy clusters provide crucial clues for understanding the origin and fate of the universe. Each large cluster such as Hydra A contains hundreds of galaxies and enough gaseous material to make a thousand more galaxies. One intriguing question has been the ultimate fate of this colossal gas reservoir. Early X-ray observations indicated that the gas in the inner regions of Hydra A should be cooling and slowly settling into the center of the cluster to form new galaxies of hundreds of trillions of dim stars. As astronomers began searching for this cool matter, they were puzzled to find that the new galaxies and stars were not detected in sufficient numbers.

The Chandra results on Hydra A, which is 840 million light years from Earth, may point to a resolution of this problem. The inflow of cooling gas may be deflected by magnetic fields, and even pushed back into the cluster by explosions from the vicinity of a black hole at the core of the central galaxy.

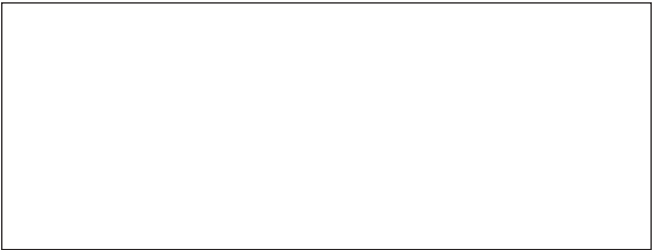
"In Hydra, you can see the whole cycle," said Brian McNamara of the Harvard-Smithsonian Center for Astrophysics. "You have the hot gas cloud, the disk of material feeding the black hole, and the evidence that the explosion from the gas near the black hole is pushing the hot gas around."

MULVILLE NAMED ASSOCIATE DEPUTY ADMINISTRATOR

NASA Administrator Daniel S. Goldin selected NASA's Chief Engineer, Dr. Daniel R. Mulville, as the space agency's Associate Deputy Administrator, effective January 1, 2000. He replaces General John R. Dailey, who is leaving to head the National Air & Space Museum.

As Associate Deputy Administrator, Mulville will plan, direct and manage the daily operations and reinvention activities of the Agency.

As the Agency's Chief Engineer since 1995, Mulville has been responsible for overall review of the technical readiness and execution of all NASA programs, ensuring that development efforts and mission operations of the agency are conducted on a sound engineering basis.



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